Web Open Font Format (WOFF)

Fonts on the Web (where we were)

- 1996
  - First W3C attempt to bring fonts on the Web
  - Two major browsers supporting incompatible proprietary font solutions (EOT vs. PFR)
  - Web authors resorted to using "web-safe" fonts
- 2007
  - Some browsers introduced support for raw fonts
  - Creation of the Fonts Working Group is discussed
- 2008
  - EOT submission – the debate continues
- 2009
  - ZOT & .webfont proposals – we're out of the maze!

Fonts on the Web (where we are)

- ZOT + .webfont = WOFF
- New format is born
  - Many thanks to the original authors Erik van Blokland (Letterror.com), Jonathan Kew (Mozilla) and Tal Leming (Type Supply)
- Font and browser makers are united with Web authors and users
- WebFonts WG is formed

WebFonts Working Group

Fonts on the Web (where we are)

- WOFF specification is published as a First Public Working Draft
  - Spec is available without fees (RF commitments)
  - Triggers opportunity for patent exclusion
  - More drafts may follow – clarifications, improvements, bug fixes, but no major changes are expected!
- Major browsers support WOFF today!

Fonts on the Web (where we are)

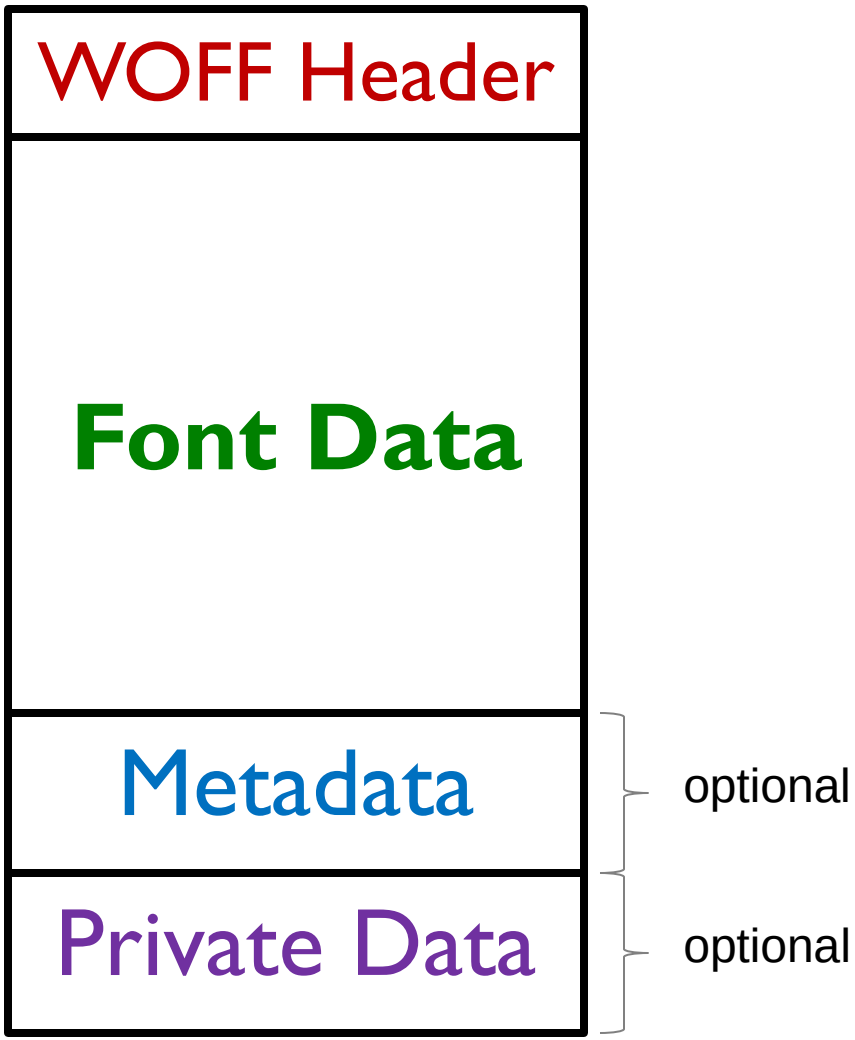
Fonts on the Web (where we go)

- Last Call Working Draft
  - Everyone agrees and we are all happy
  - Last opportunity for patent exclusion
  - Accessibility and internationalization review
- Candidate Recommendation
  - Creation of a test suite
  - Testing of implementations
  - Implementation report (2+ implementations pass)
- Proposed Recommendation (W3C, pass/fail)
- W3C Recommendation – Web Standard!

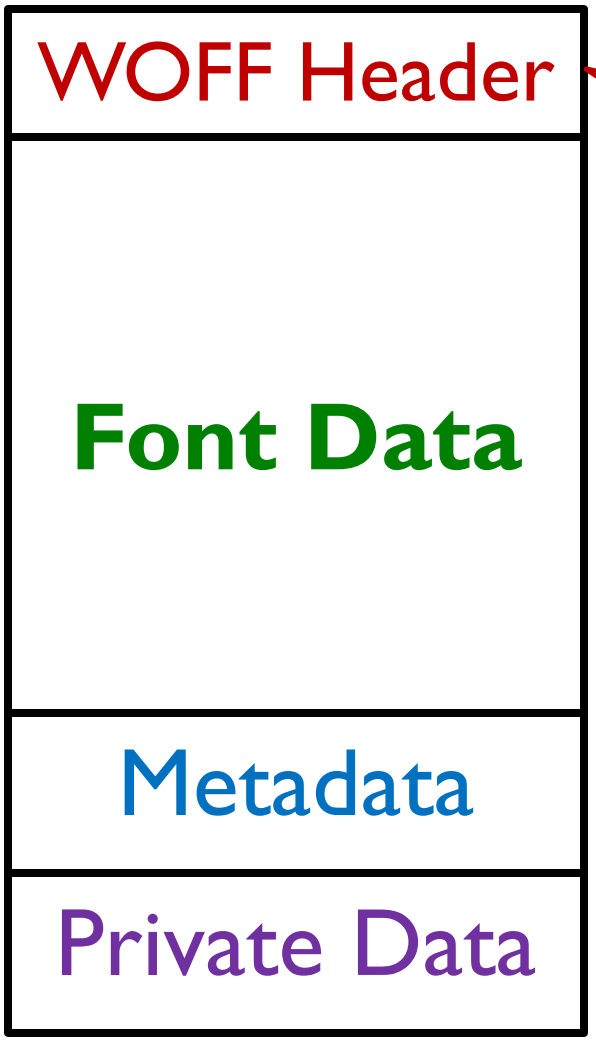
WOFF

What is it, exactly?

WOFF File Format

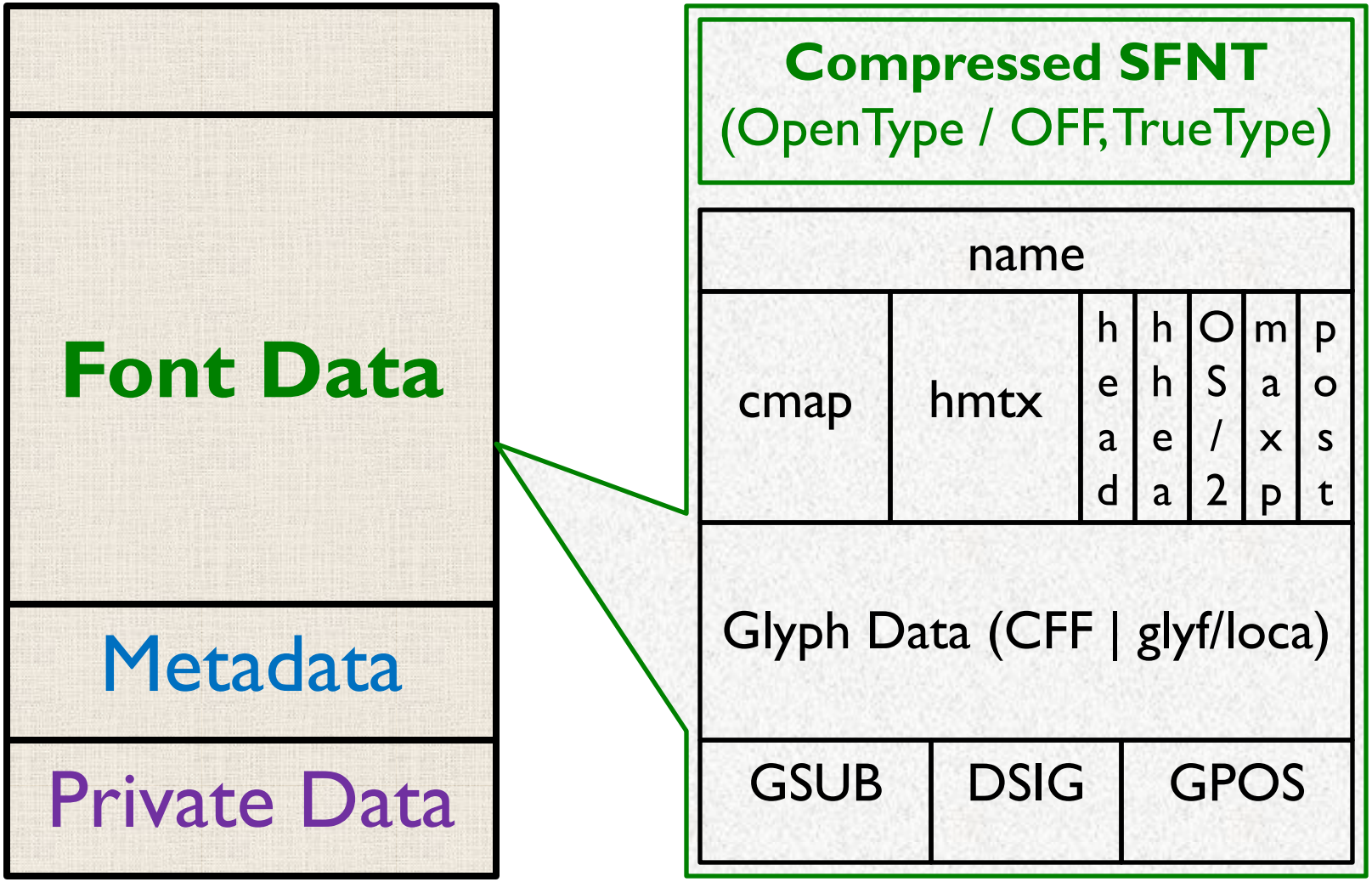


WOFF File Format



Includes identifying signature, indicates the specific kind of font data (TTF, OTF, etc.), provides the file parsing information, font table directory, etc.

WOFF File Format



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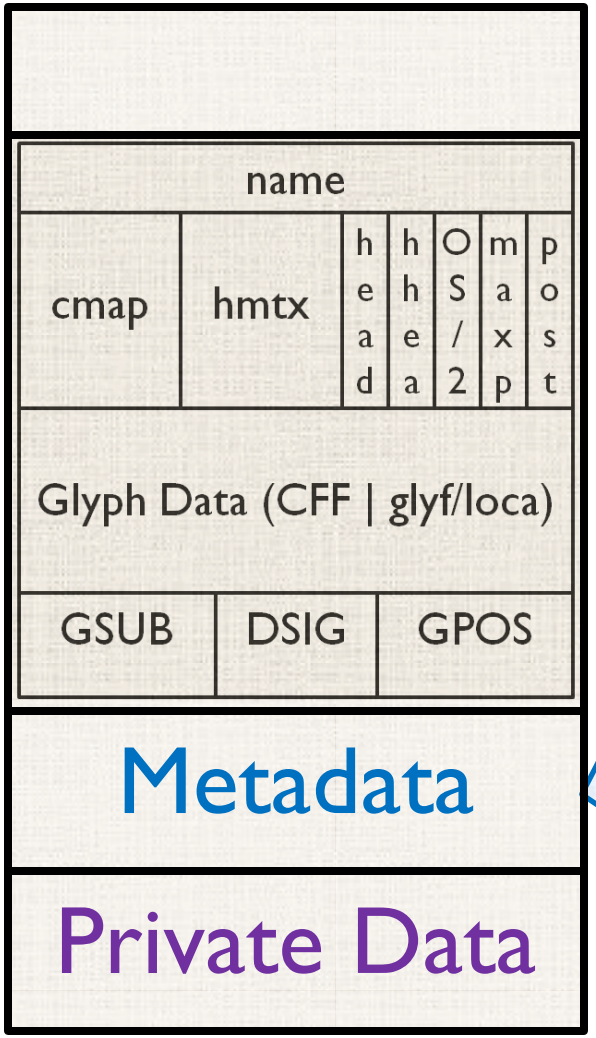
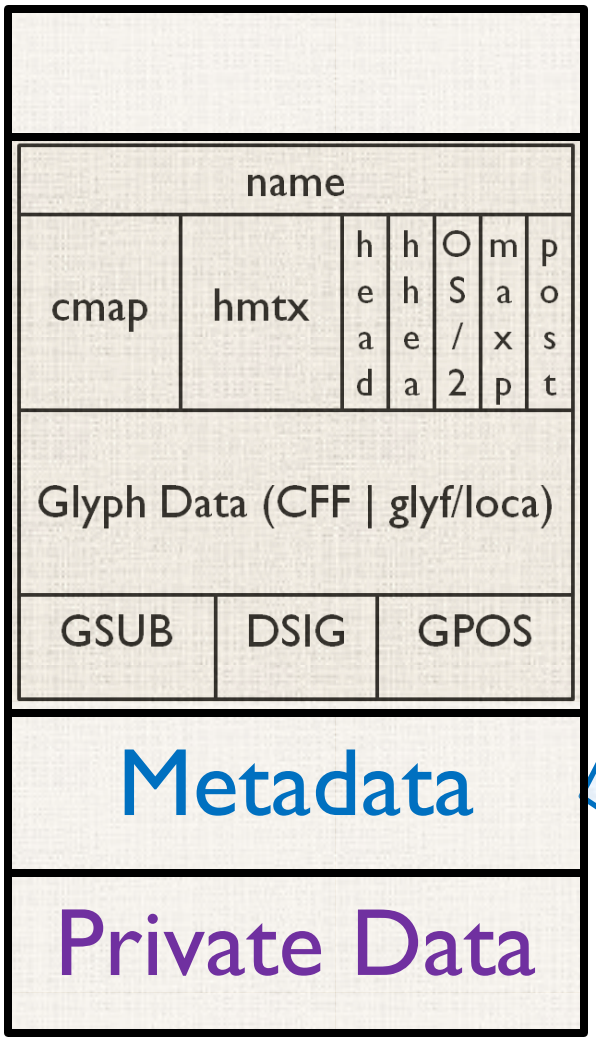


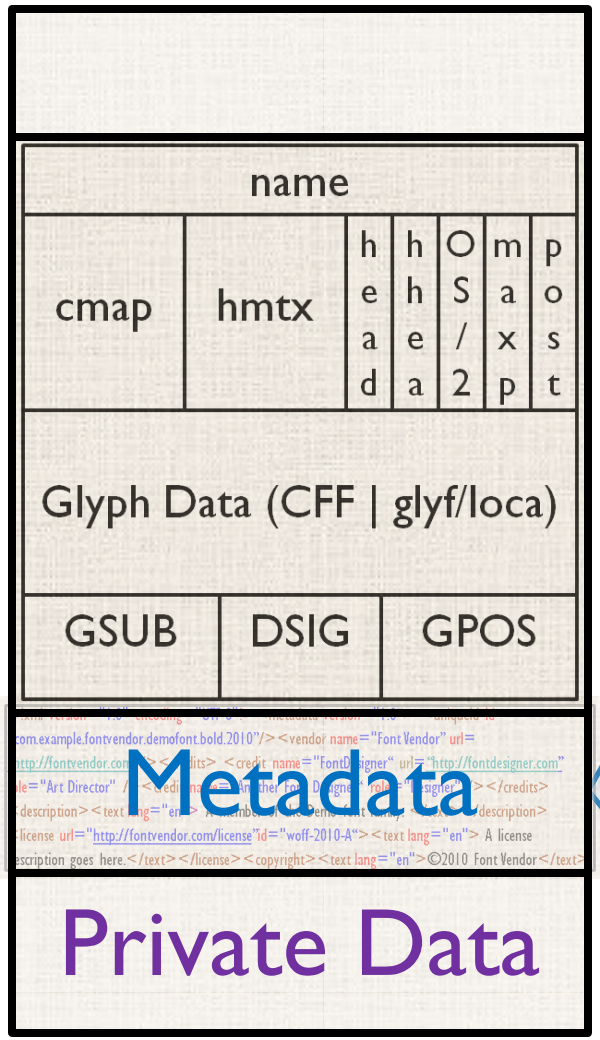
Unique ID	A unique identifier for the font
Vendor	The vendor name and URL
Credits	Info about designer, hinter, etc.
Description	Typeface description, history, use recommendation, etc.
License Info	Information about font license
Copyright	A copyright notice for the font
Trademark	A trademark statement
Licensee	The licensee for the font
Extensions	Vendor-specific extended info

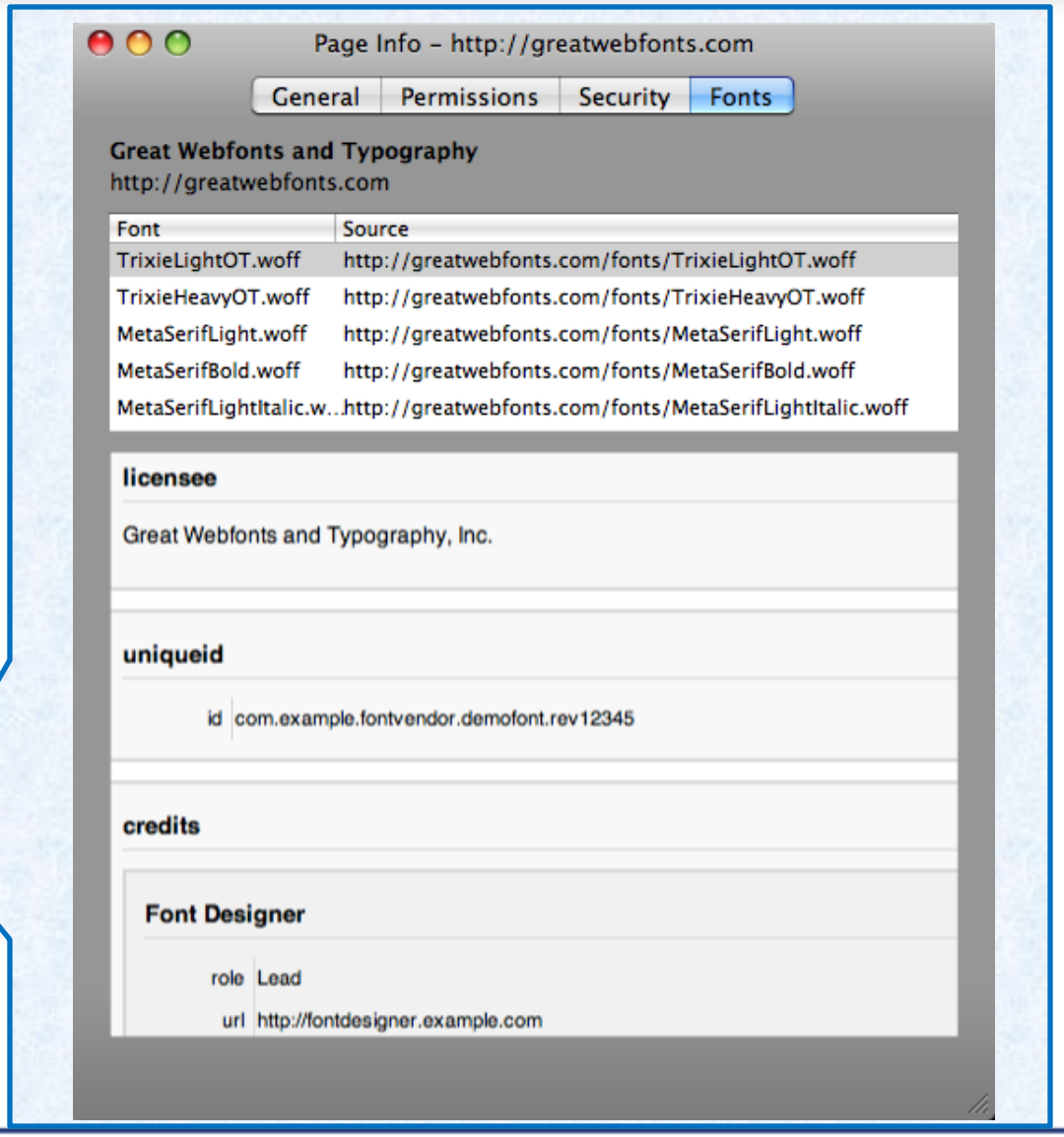
WOFF File Format




```
<?xml version="1.0" encoding="UTF-8"?>
<metadata version="1.0">
    <uniqueid id="com.example.fontvendor.demofont.bold.2010" />
    <vendor name="Font Vendor" url="http://fontvendor.com" />
    <credits>
        <credit name="FontDesigner“ url="http://fontdesigner.com"
                role="Art Director" />
        <credit name="Another Font Designer“ role="Designer" />
    </credits>
    <description>
        <text lang="en“> A member of the Demo font family. </text>
    </description>
    <license url="http://fontvendor.com/license" id="woff-2010-A">
        <text lang="en">A license description goes here.</text>
    </license>
    <copyright>
        <text lang="en">©2010 Font Vendor</text>
     …
```

WOFF File Format





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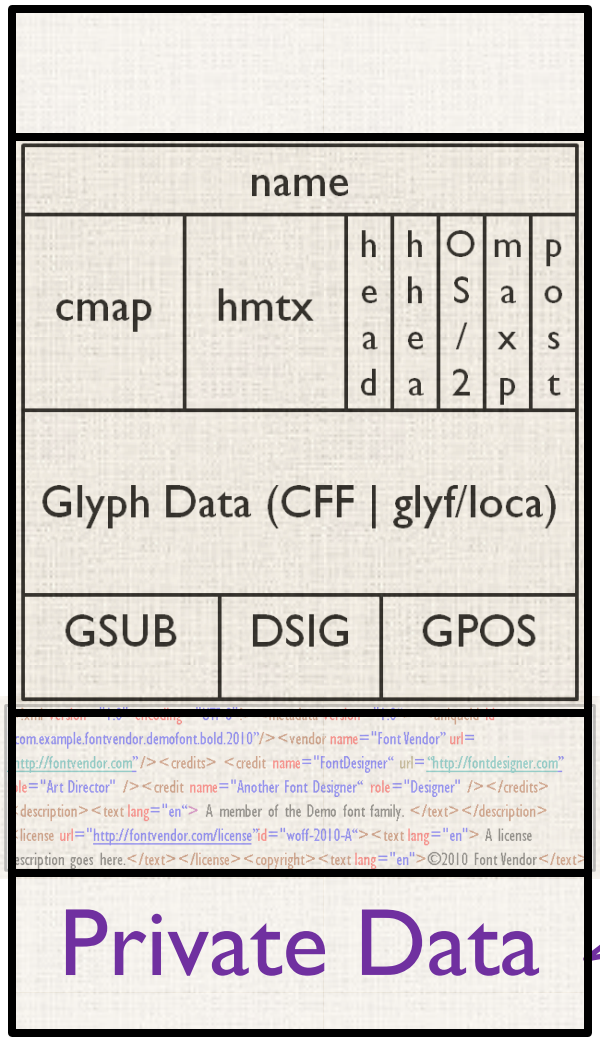
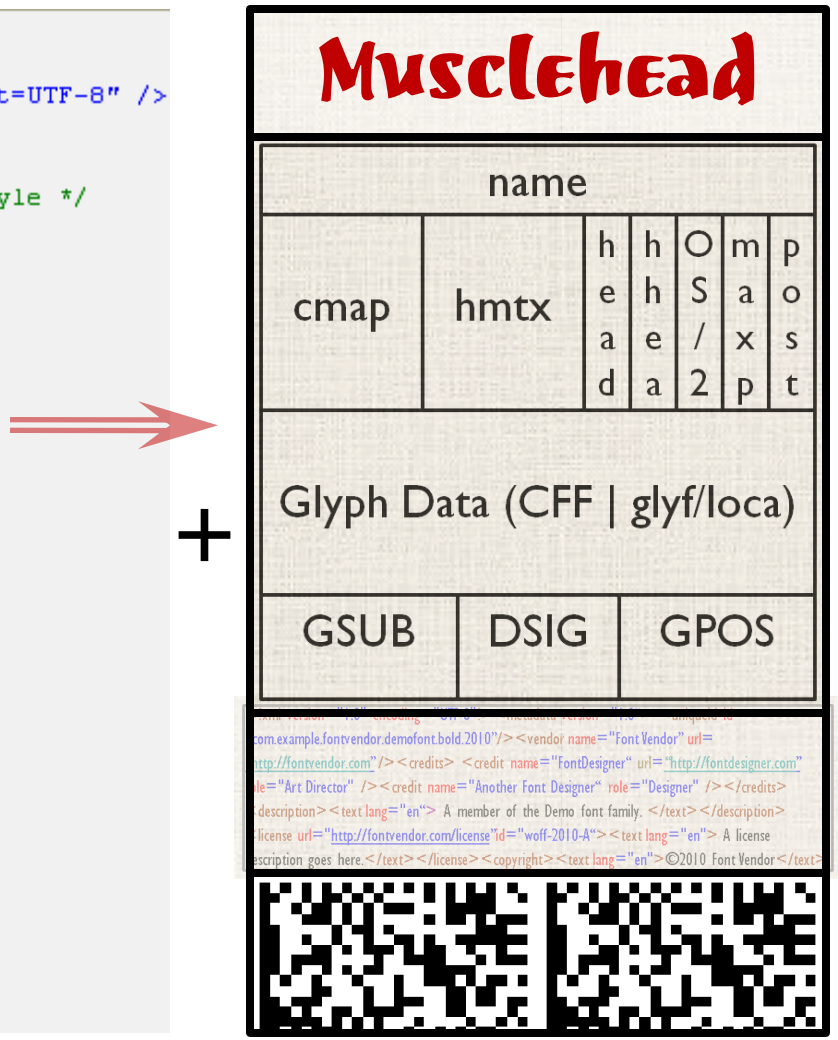


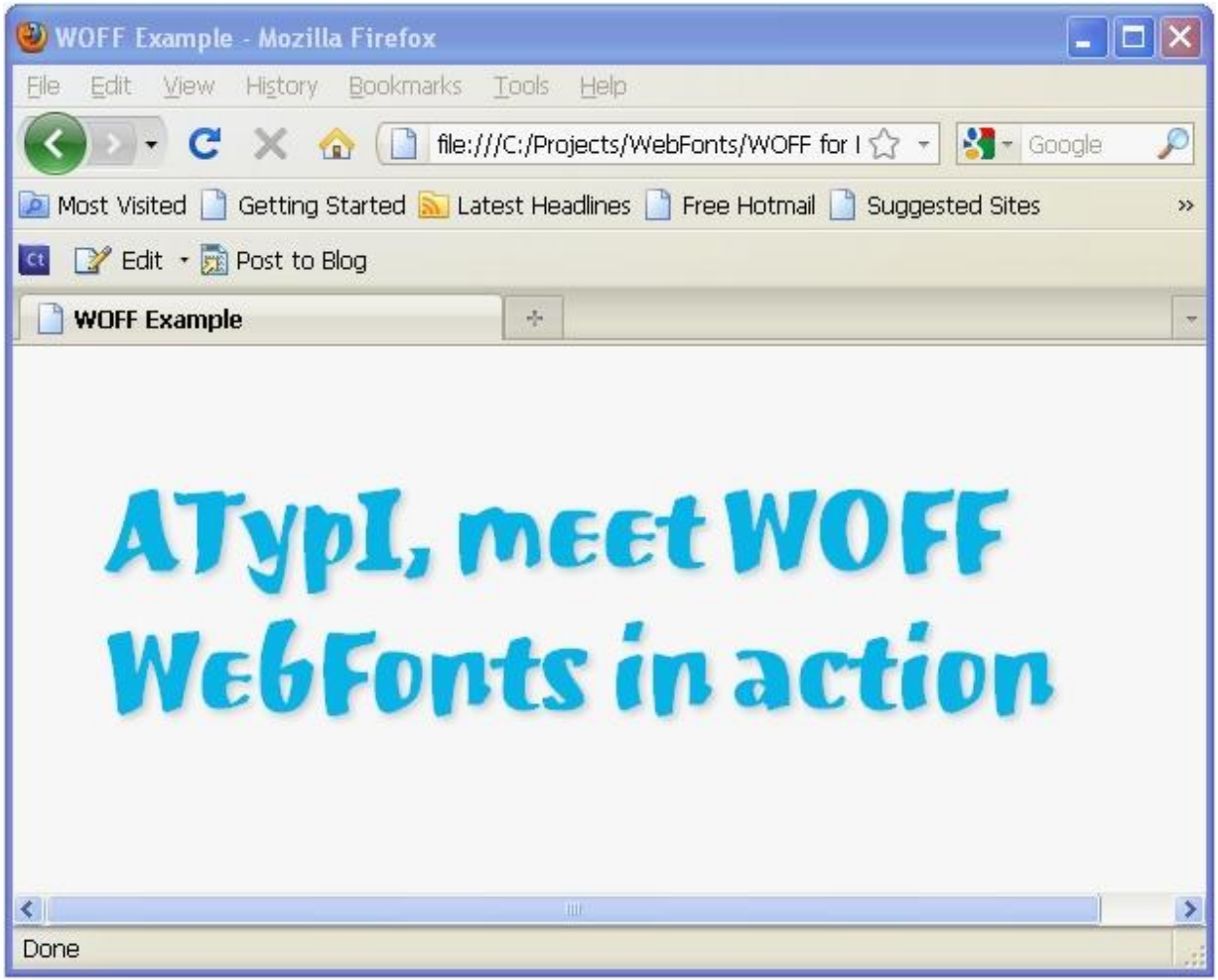
A block of arbitrary data reserved exclusively for use by font creators.

WebFonts in Action

```
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
    <title>WOFF Example</title>
    <style type="text/css">
    <!--    /* The is CSS code that defines font source and style */
    #wrapper {
        width:600px;
        margin:40px;
    }
    @font-face {
        font-family: Musclehead;
        src: url(woff_files/Musclehead.woff) format("woff");
    }
    .headline {
        font-family:Musclehead, Verdana, sans-serif;
        font-size:60px;
        text-shadow: #ccc 2px 2px 5px;
        color:#00B7EB;
    }
    -->
    </style>
</head>
<body>
    <div id="wrapper">
        <p class="headline">ATypI, meet WOFF
        <br />WebFonts in action</p>
    </div>
</body>
</html>
```



WebFonts in Action



WebFonts in Action

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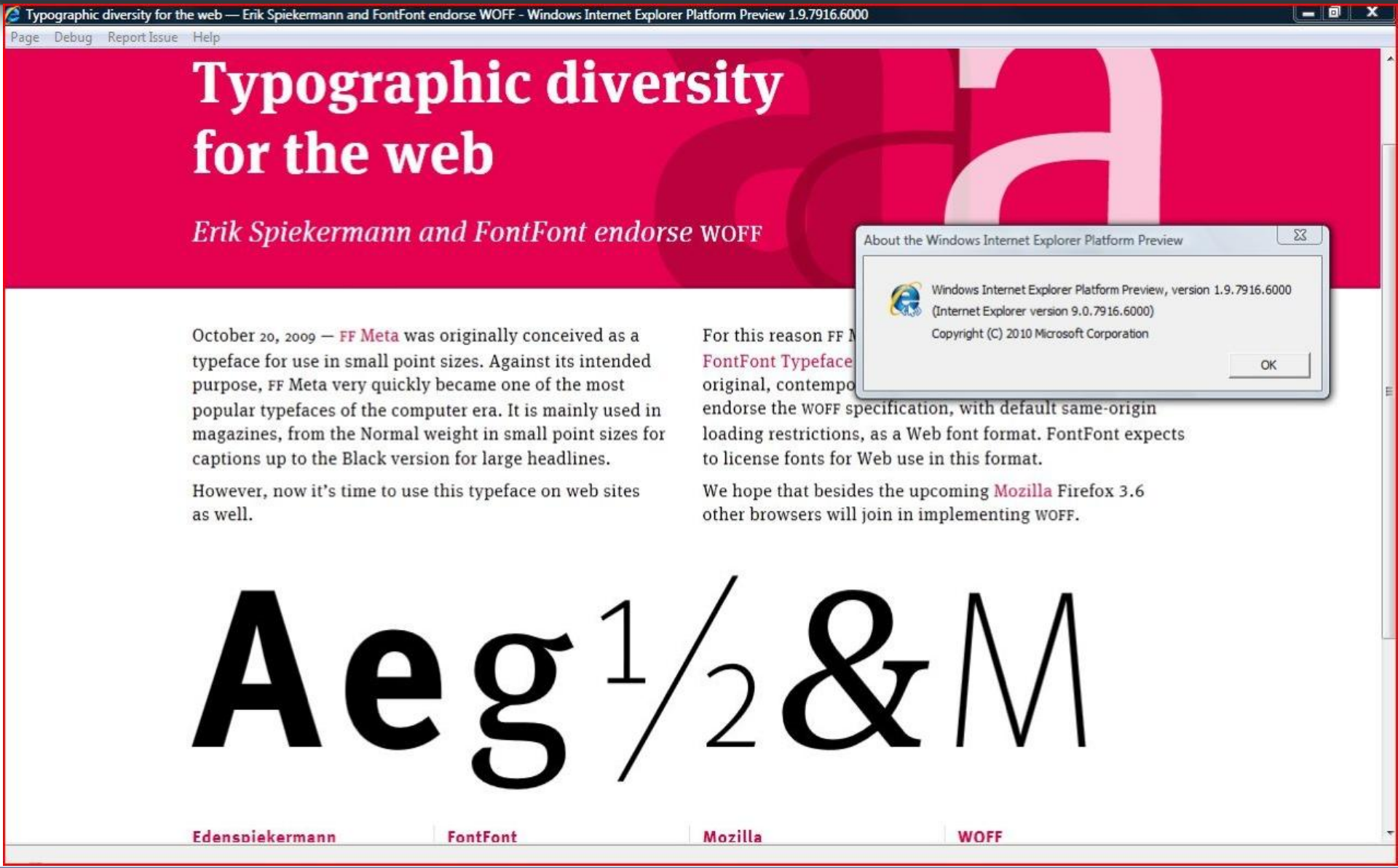

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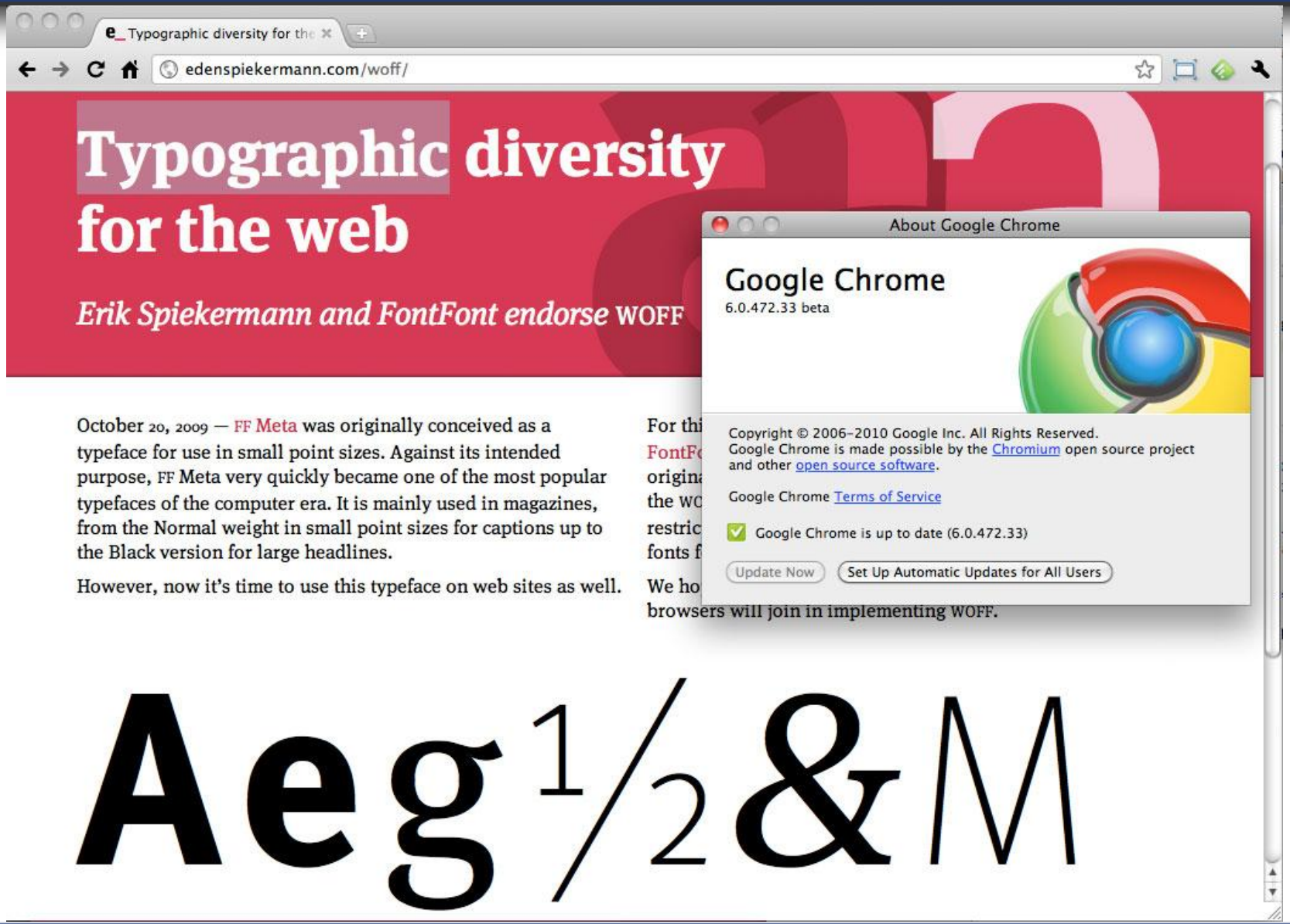

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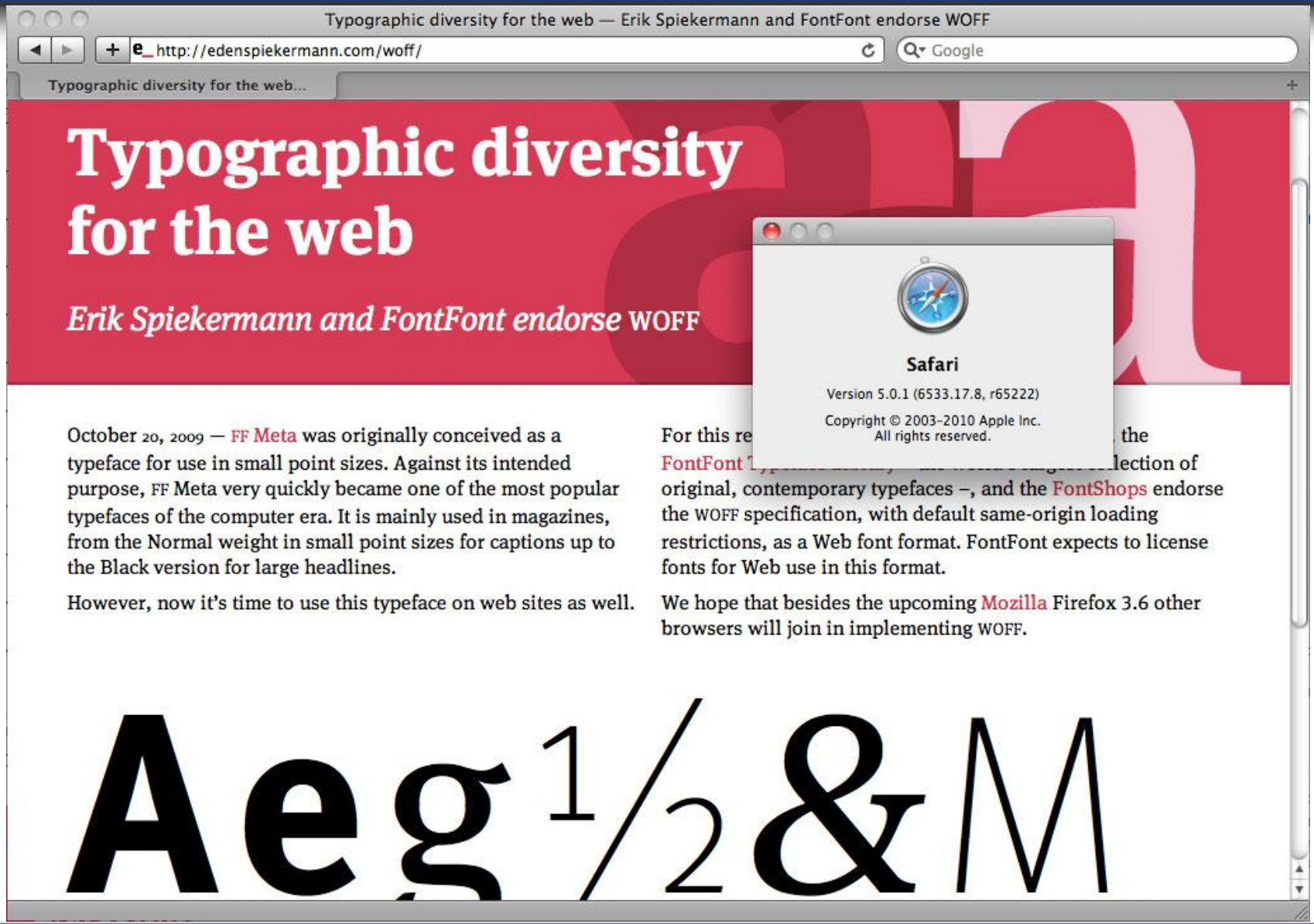


Same-Origin Restriction and CORS

- WebFonts introduce a significant security risk
- Same-origin restriction protects users from malicious attacks involving font files, and is mandated by CSS and WOFF specifications

Same-Origin Restriction and CORS

- Same-origin restriction is satisfied if both HTML document and the fonts are delivered using:
  - Same protocol
  - Same domain
  - Same port
- The restriction can be lifted using “Cross-Origin Resource Sharing” (a new technology being developed by W3C)

What WOFF **isn't**!

WOFF is **not** a new Font Format

WOFF is **not** a DRM

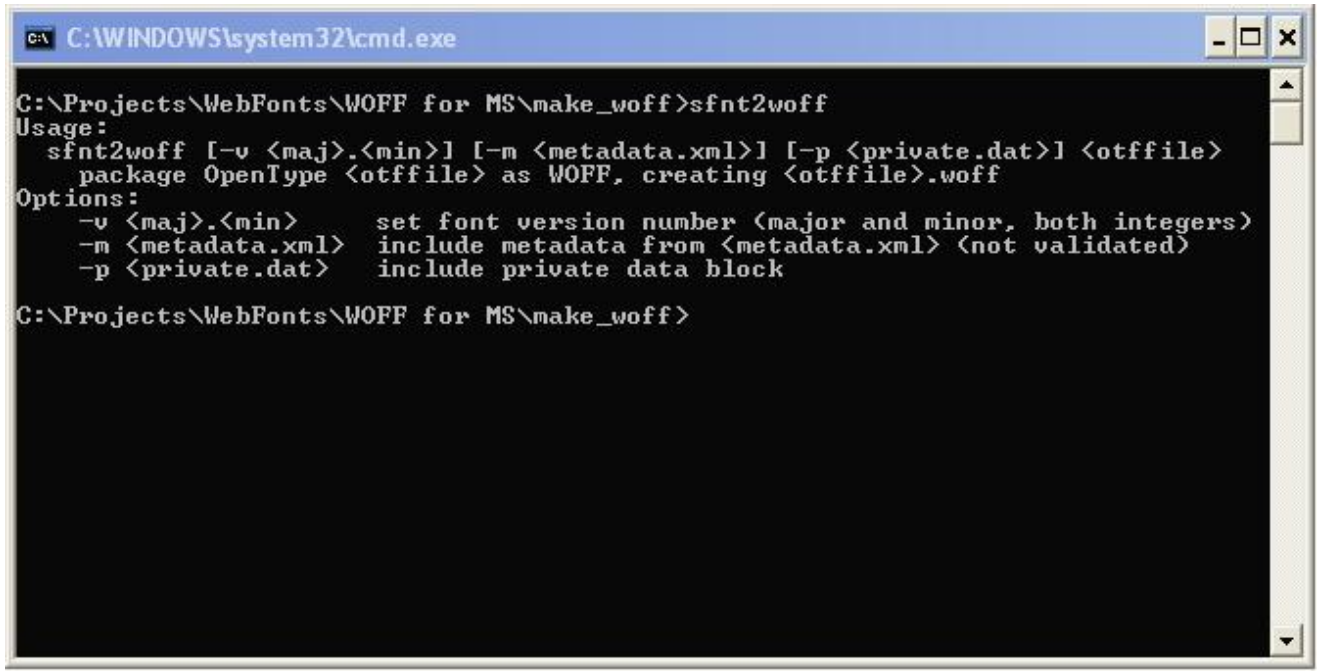
- There is no obfuscation or rights management:
  - A font packaged inside WOFF file can be easily converted back to its original format.
  - WOFF serves as a "garden fence" that informs users about the intended web font use and license conditions.
  - Violators can no longer claim ignorance – they know exactly what they're doing

WOFF is **not** theft-proof

- "Can I download a WOFF file from a Web server and simply upload it to my own server?"
- Yes, you can! But, by doing so:
  - You identify yourself as a thief! The WOFF metadata says that someone else has actually licensed a font.
  - Metadata can be edited, but the private data will likely contain information that identifies a licensee transaction ID
  - Private data can be removed but the font itself remains identifiable and its presence on a server paints you as a thief
- WOFF metadata and private data are there for font creators – use it to protect your IP!

WOFF
Creation Tools

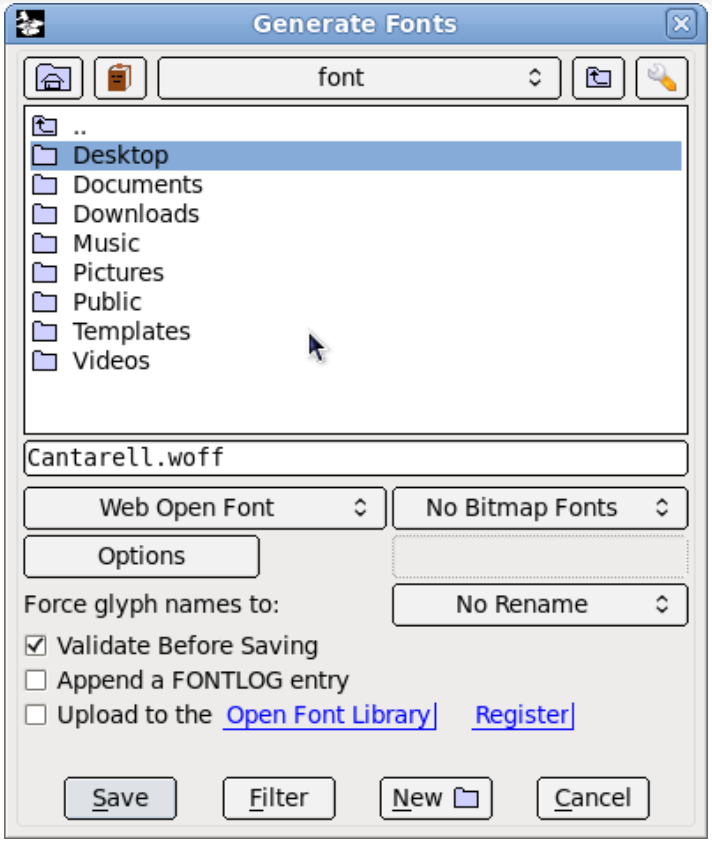
WOFF Creation Tools



sfnt2woff

http://people.mozilla.com/~jkew/woff/

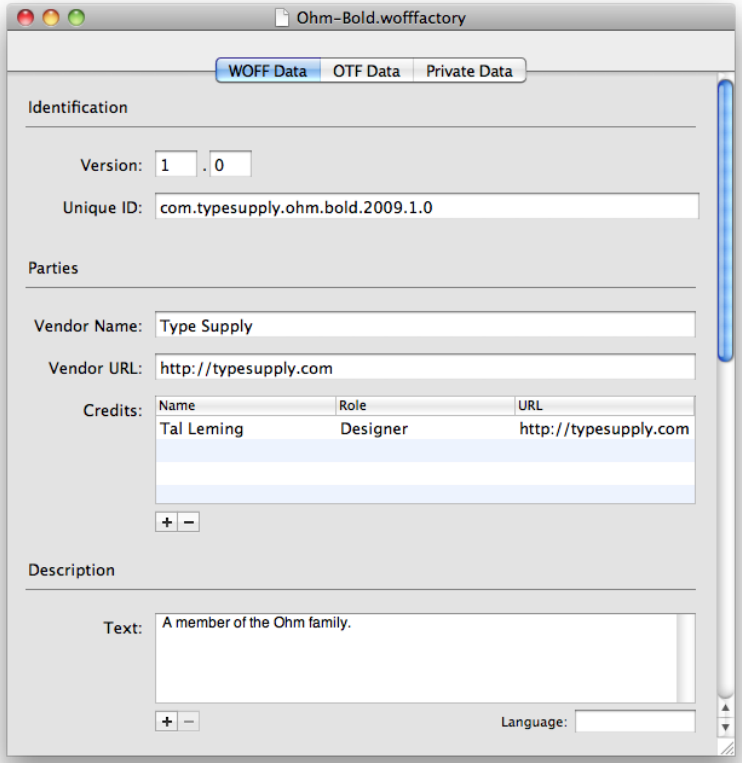
WOFF Creation Tools

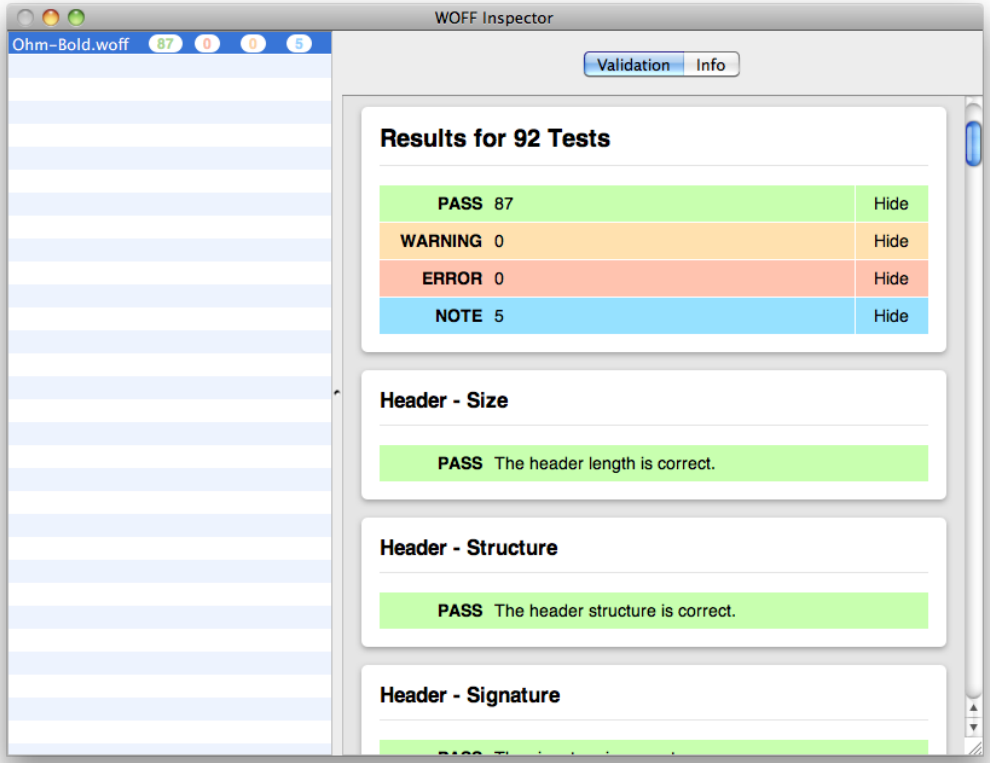


FontForge

http://fontforge.sourceforge.net/

WOFF Creation Tools



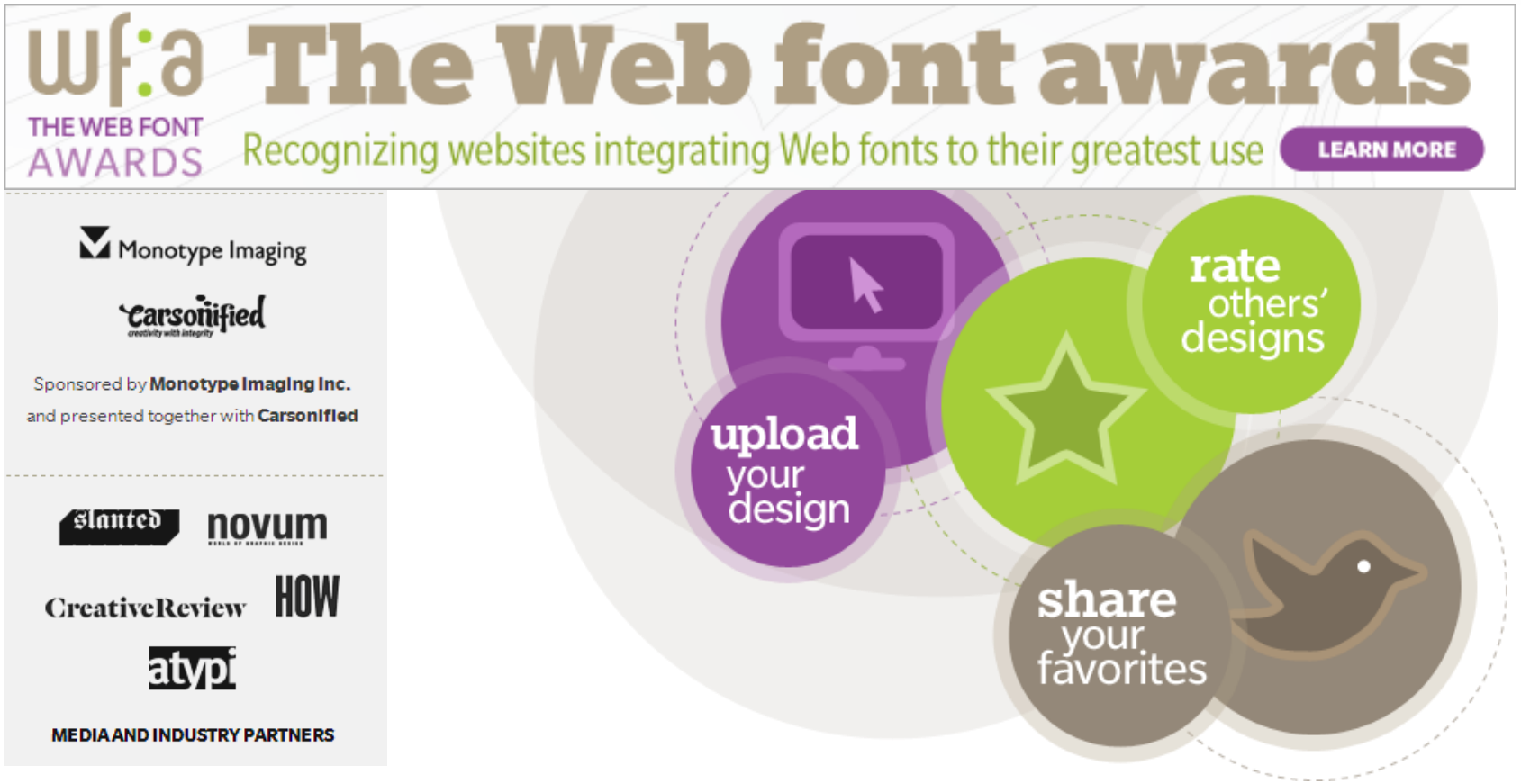


WOFF Tools

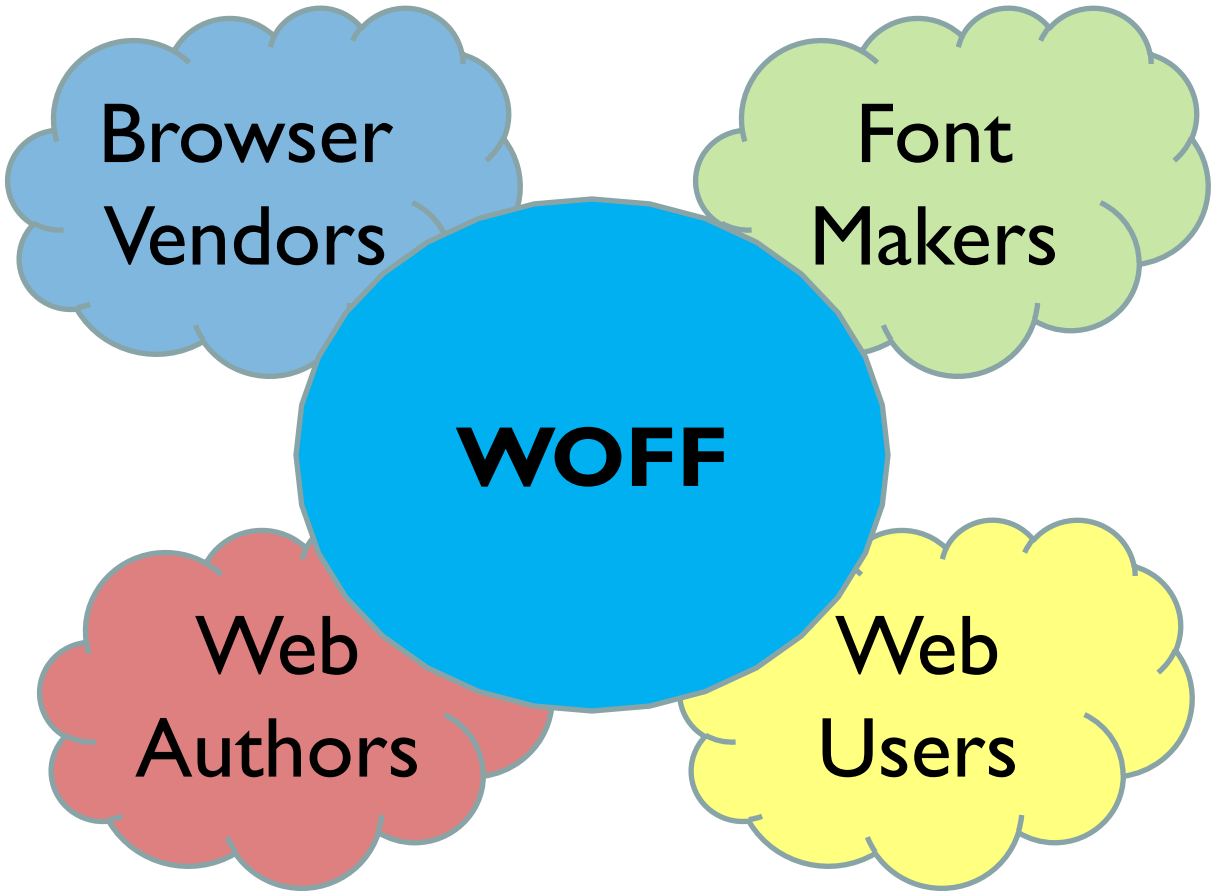
http://code.typesupply.com/

http://tools.typesupply.com/

www.webfontawards.com



Any Web Font service! Any technology! Any design!

A design competition for website using Web fonts. Learn more at www.webfontawards.com

Questions?